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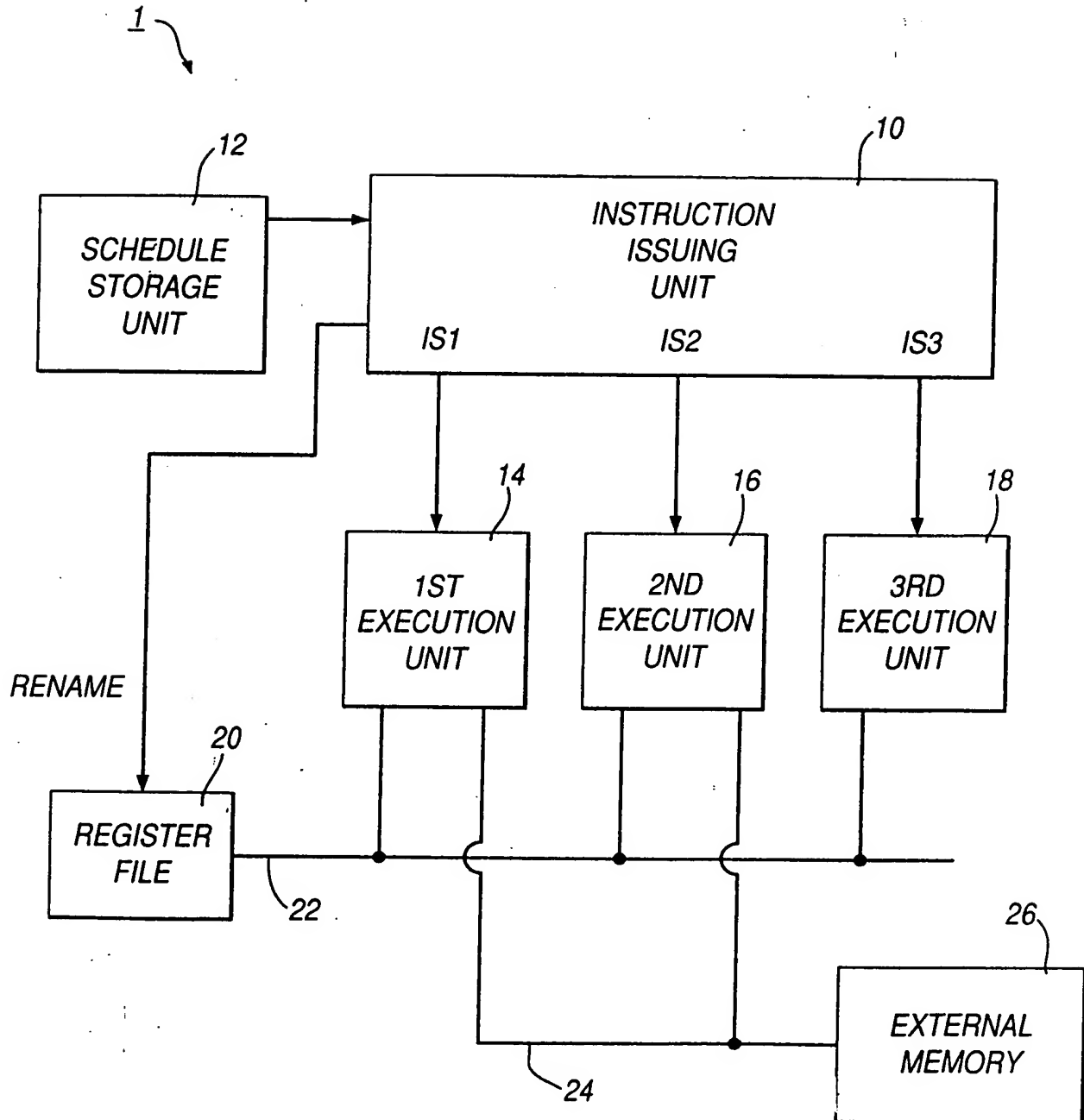


Fig.1

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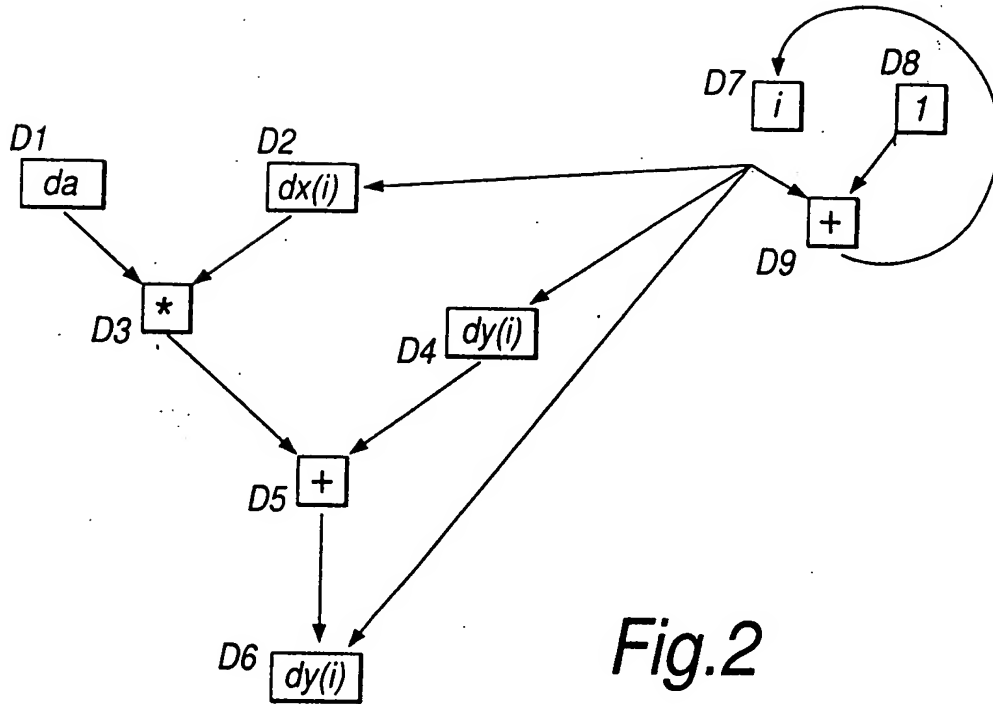


Fig. 2

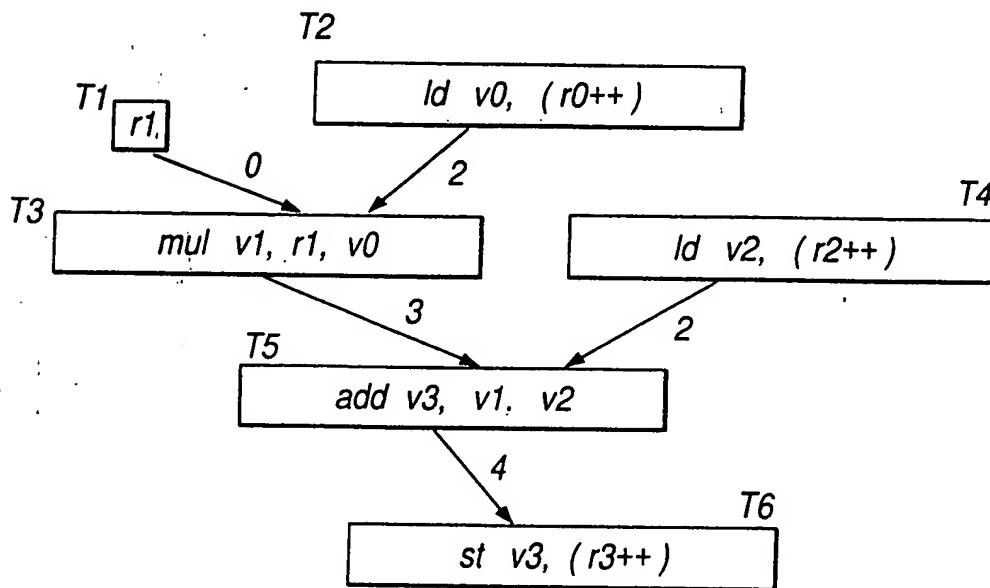


Fig. 3

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Stage	Cycle	Issue slot 1	Issue slot 2	Issue slot 3	v0	v1	v2	v3
1	0	ld v0, (r0++)			s0			
	1				s0			
2	2			mul v1, v0, r1	s1	s2		
	3	ld v2, (r2++)				s2	s4	
3	4					s3	s5	
	5			add v3, v1, v2		s3	s5	
4	6						s6	
	7						s7	
5	8						s7	
	9		st v3, (r3++)				s8	

Fig.4

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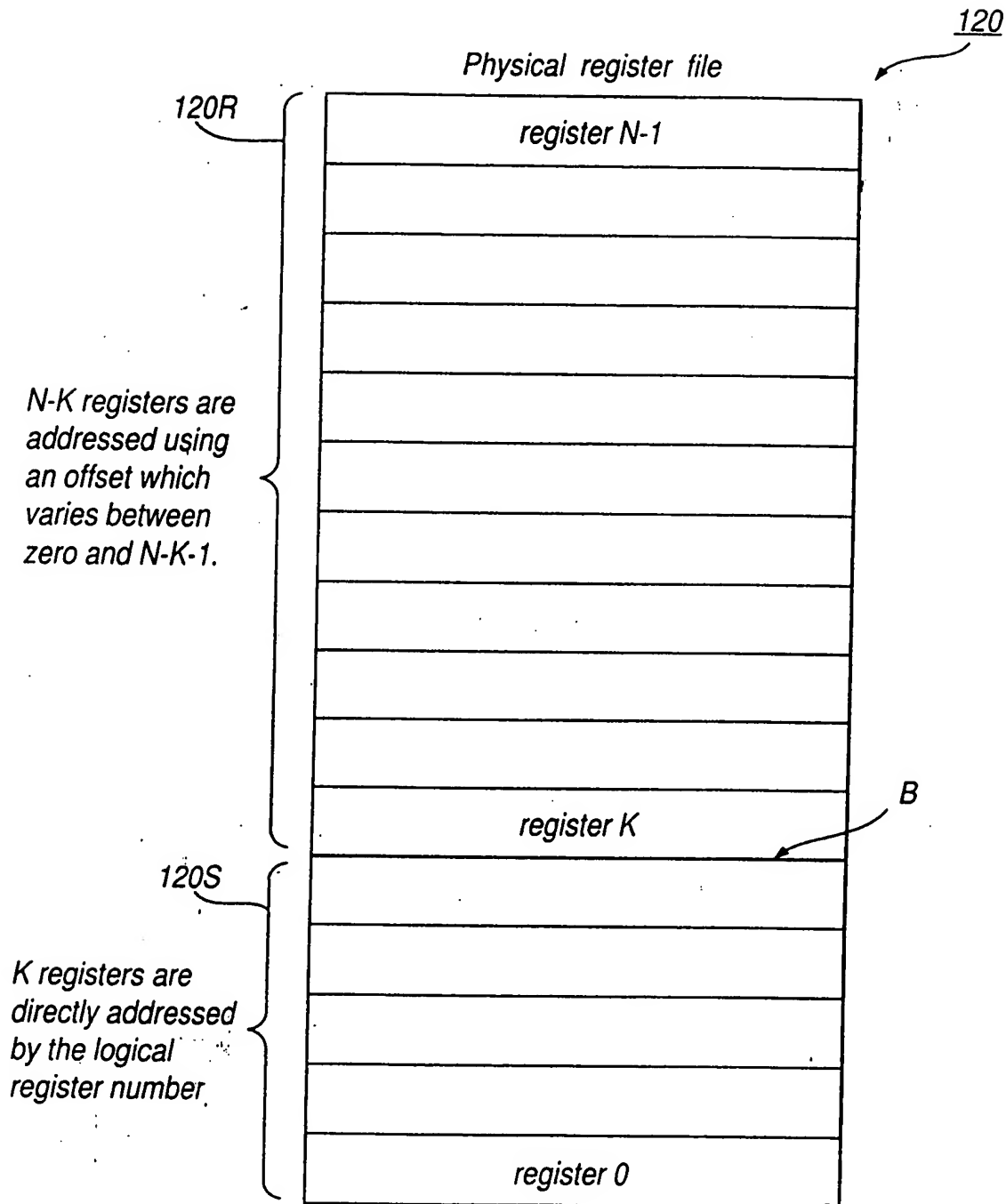


Fig.5

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Cycle	Offset	Iteration 0					Iteration 1				
		Instruction	v0	v1	v2	v3	Instruction	v0	v1	v2	v3
0	6	ld v0, (r0++)	r4 (▴ p10)								
1	6		r4 (▴ p10)								
2	5	mul v1, v0, r1	r5 (▴ p10)	r6 (▴ p11)			ld v0, (r0++)	r4 (▴ p9)			
3	5	ld v2, (r2++)		r6 (▴ p11)	r8 (▴ p13)			r4 (▴ p9)			
4	4			r7 (▴ p11)	r9 (▴ p13)		mul v1, v0, r1	r5 (▴ p9)	r6 (▴ p10)		
5	4	add v3, v1, v2		r7 (▴ p11)	r9 (▴ p13)	r10 (▴ p14)	ld v2, (r2++)		r6 (▴ p10)	r8 (▴ p12)	
6	3					r11 (▴ p14)			r7 (▴ p10)	r9 (▴ p12)	
7	3					r11 (▴ p14)	add v3, v1, v2		r7 (▴ p10)	r9 (▴ p12)	r10 (▴ p13)
8	2					r12 (▴ p14)					r11 (▴ p13)
9	2	st v3, (r3++)				r12 (▴ p14)					r11 (▴ p13)
10	1										r12 (▴ p13)
11	1						st v3, (r3++)				r12 (▴ p13)

Fig.6(A)

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Iteration 0												Iteration 1			
Cycle	Offset	Instruction	v0	v1	v2	v3	Instruction	v0	v1	v2	v3				
0	6														
1	6														
2	5														
3	5														
4	4	ld v0, (r0++)	r4 (► p8)												
5	4		r4 (► p8)												
6	3	mul v1, v0, r1	r5 (► p8)	r6 (► p9)			ld v0, (r0 ++)	r4 (► p7)							
7	3	ld v2, (r2++)		r6 (► p9)	r8 (► p11)			r4 (► p7)							
8	2			r7 (► p9)	r9 (► p11)		mul v1, v0, r1	r5 (► p7)	r6 (► p8)						
9	2	add v3, v1, v2		r7 (► p9)	r9 (► p11)	r10 (► p12)	ld v2, (r2++)		r6 (► p8)	r8 (► p10)					
10	1					r11 (► p12)			r7 (► p8)	r9 (► p10)					
11	1					r11 (► p12)	add v3, v1, v2		r7 (► p8)	r9 (► p10)	r10 (► p11)				
12	0					r12 (► p12)					r11 (► p11)				
13	0	st v3, (r3++)				r12 (► p12)					r11 (► p11)				
14	-1										r12 (► p11)				
15	-1						st v3, (r3++)				r12 (► p11)				

Fig.6(B)

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		<i>Iteration 0</i>	<i>Iteration 1</i>	<i>Iteration 2</i>	<i>Iteration 3</i>
<i>Cycle</i>	<i>Offset</i>	<i>Instruction</i>	<i>Instruction</i>	<i>Instruction</i>	<i>Instruction</i>
0	6	ld r4, (r0++)			
1	6				
2	5	mul r6, r5, r1	ld r4, (r0++)		
3	5	ld r8, (r2++)			
4	4		mul r6, r5, r1	ld r4, (r0++)	
5	4	add r10, r7, r9	ld r8, (r2++)		
6	3			mul r6, r5, r1	ld r4, (r0++)
7	3		add r10, r7, r9	ld r8, (r2++)	
8	2				mul r6, r5, r1
9	2	st r14, (r3++)		add r10, r7, r9	ld r8, (r2++)
10	1				
11	1		st r12, (r3++)		add r10, r7, r9
12	0				
13	0			st r12, (r3++)	
14	-1				
15	-1				st r12, (r3++)

Fig.7

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Cycle	Offset	Iteration 0	Iteration 1	Iteration 2	Iteration 3
		Instruction	Instruction	Instruction	Instruction
0	6	ld p10, (p0++)			
1	6				
2	5	mul p11, p10, p1	ld p9, (p0++)		
3	5	ld p13, (p2++)			
4	4		mul p10, p9, p1	ld p8, (p0++)	
5	4	add p14, p11, p13	ld p12, (p2++)		
6	3			mul p9, p8, p1	ld p7, (p0++)
7	3		add p13, p10, p12	ld p11, (p2++)	
8	2				mul p8, p7, p1
9	2	st p14, (p3++)		add p12, p9, p11	ld p10, (p2++)
10	1				
11	1		st p13, (p3++)		add p11, p8, p10
12	0				
13	0			st p12, (p3++)	
14	-1				
15	-1				st p11, (p3++)

Fig.8

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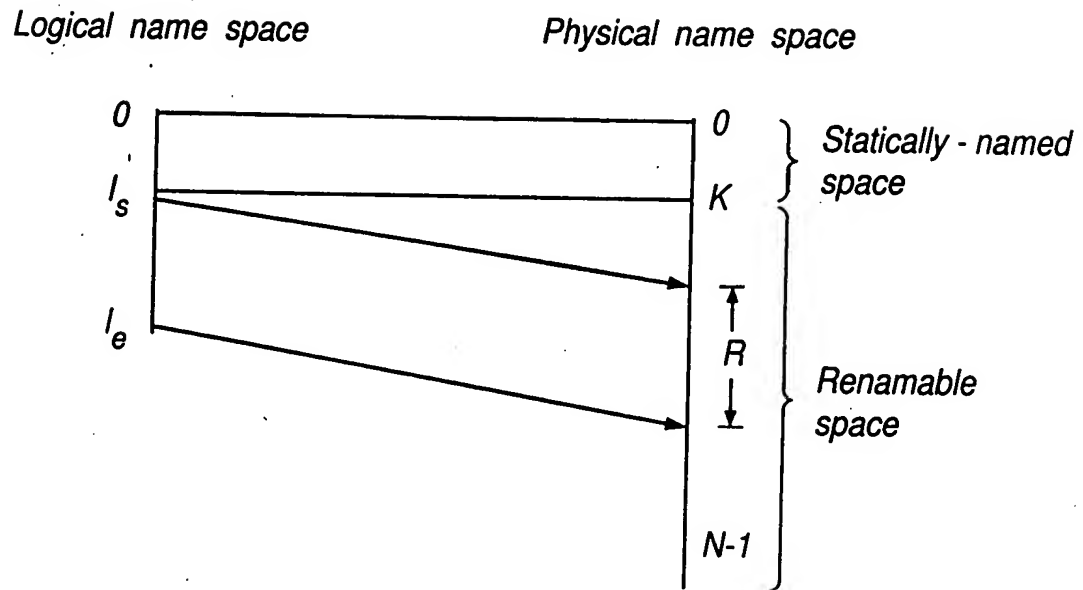


Fig.9

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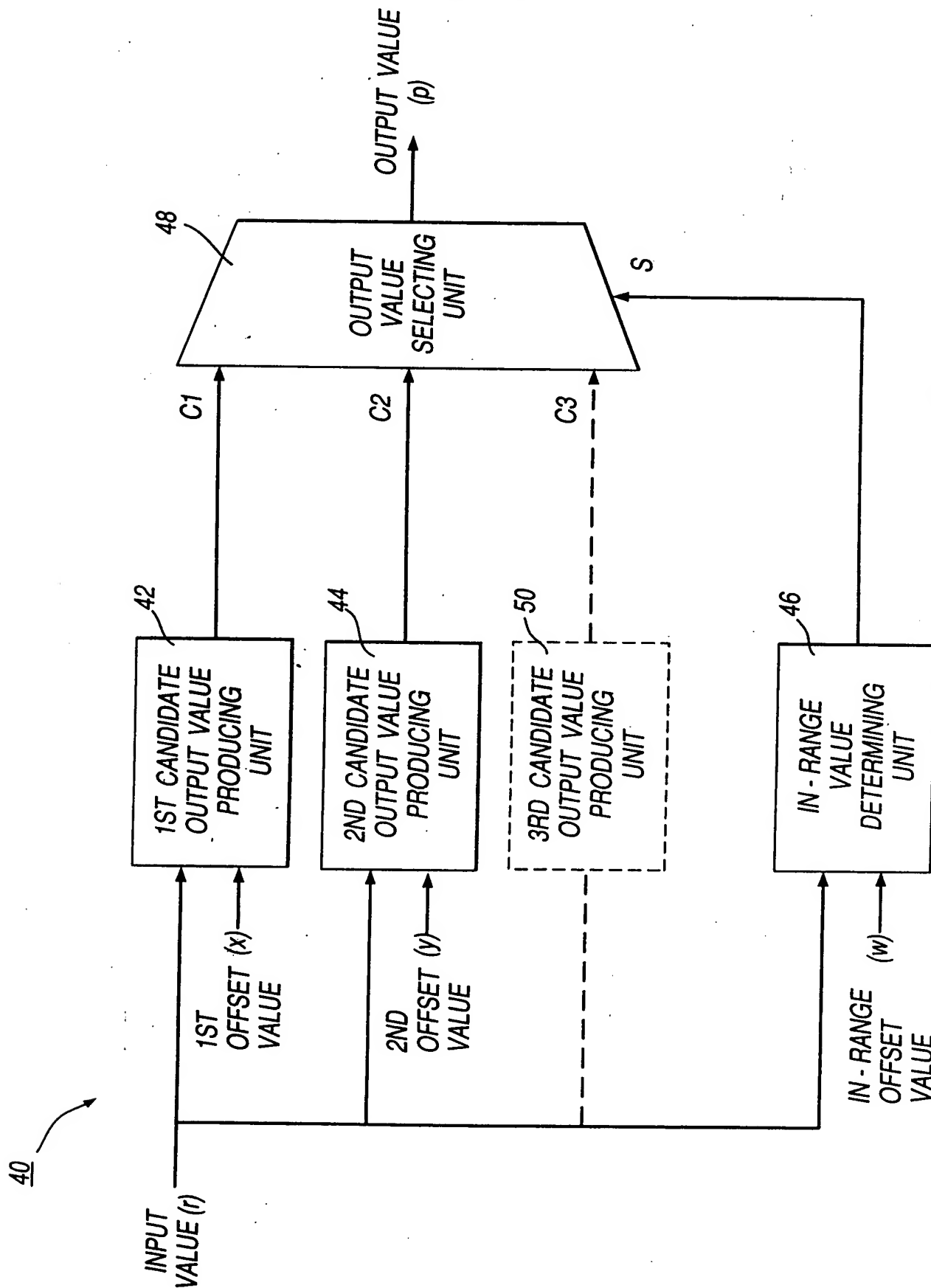


Fig.10

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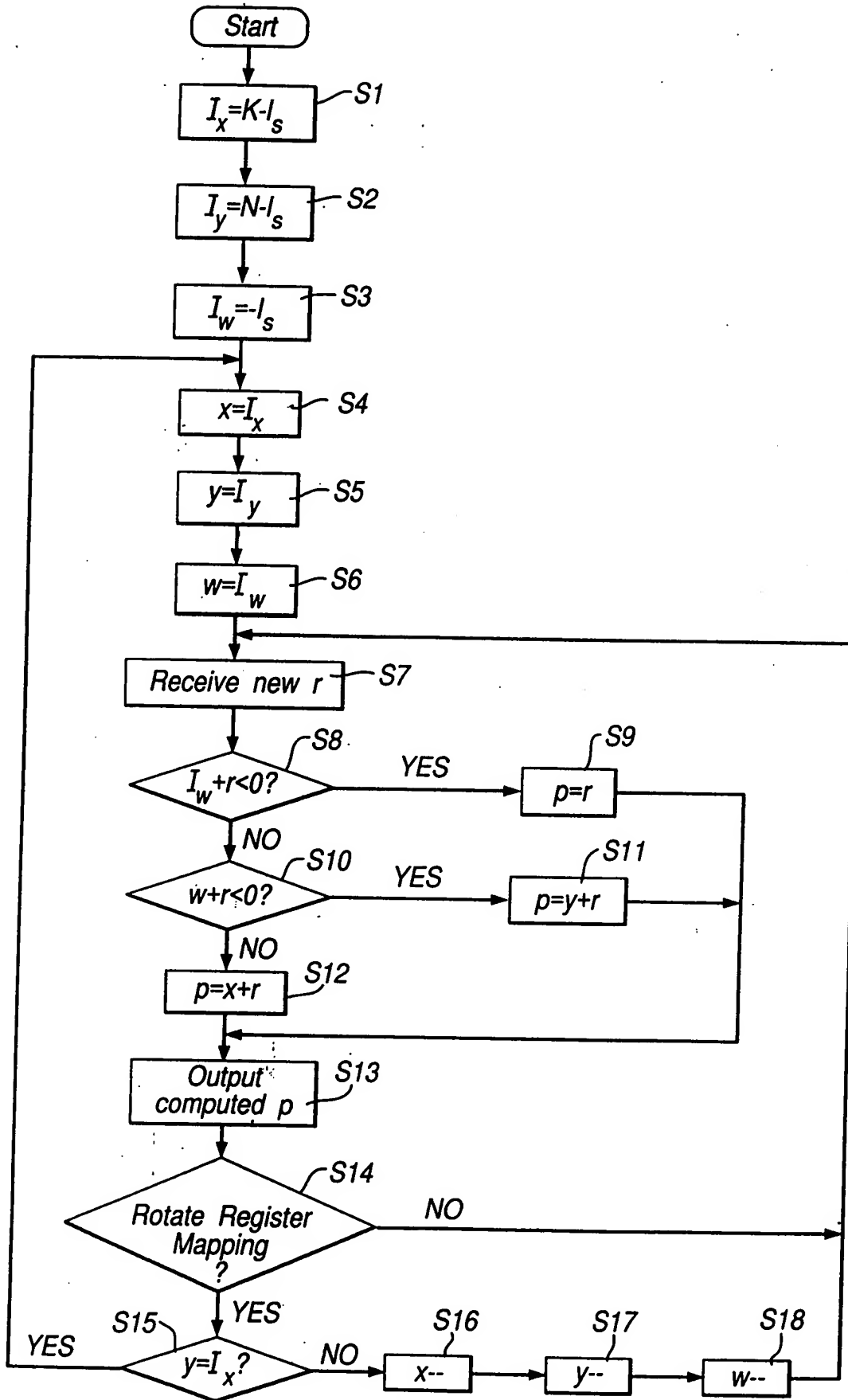


Fig.11

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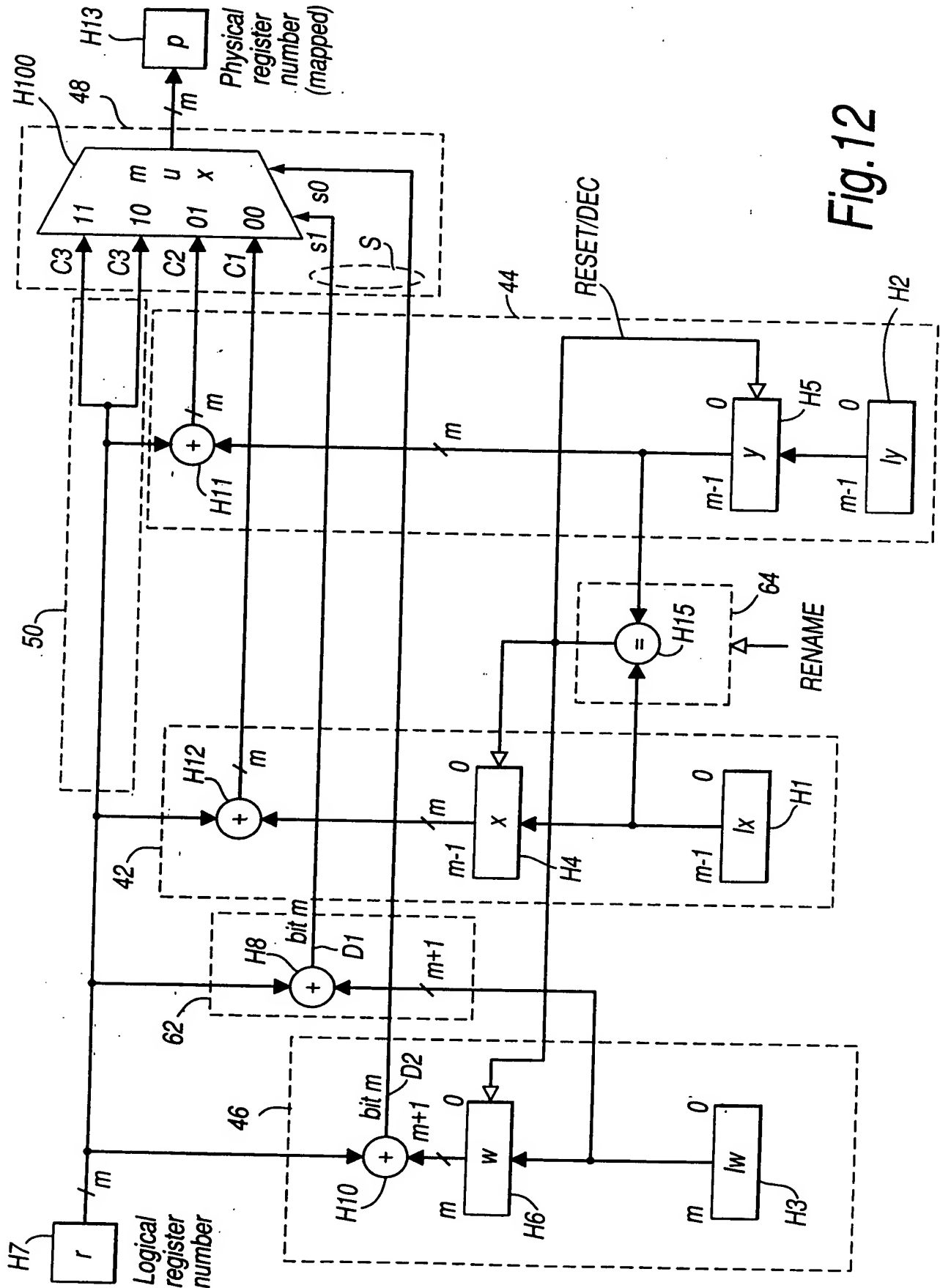


Fig. 12